A culvert system allows water to flow freely under a road or driveway, preventing any flooding along the roadway or nearby property. The corrugated, plastic pipe provides an efficient and long lasting solution to culvert drainage needs. This guide is to assist homeowners and contractors on how to properly install the product in a culvert application.

PRODUCT MATERIALS

### 8"-60" GOLDFLO® or GOLDLINE® Pipe
Estimate length and round up to nearest 20' length.

**NOTE:** Account for extra pipe on each end to extend beyond slope of driveway. Cut pipe with saw in valley between corrugations to any length.

### Aprons (2)
Installed on pipe ends, aprons divert water in and away from culvert openings. Match to pipe diameter.

### Split Coupler(s)
Couplers join two lengths of pipe. Match to pipe diameter.

**Other tools and equipment needed:** shovel, skid loader or excavator, compaction equipment, reciprocating or hand saw, personal protective equipment (PPE).

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**Before you Dig**

- Call 811 for utility locations.
- Check state and local culvert requirements.

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**CULVERT INSTALLATION**

1. **Excavation**
   - Excavate trench width according to chart.
   - Crushed stone preferred
   - Sand, gravel, or gravel/sand mix may be used.

2. **Bedding**
   - Compact bedding on outer thirds only.

3. **GOLDFLO® or GOLDLINE® Pipe**
   - Center pipe within trench.

4. **Initial Backfill**
   - Use same material as bedding.
   - Compact backfill in area below width of pipe.
   - Fill to minimum of top of pipe, compacting occasionally.
   - Ensure material fills between corrugations in pipe.

5. **Final Backfill**
   - Pipe Diameter 4" (100 mm) - 60" (1500 mm)
   - Min. Fill 12" (300 mm)*
   - If rutting from traffic is common, add additional 6" of fill.

6. **Gravel or Pavement Surface**
   - (If applicable.)
   - See chart 1 at left for excavation width.

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* See Prinsco’s “Structures Design Guide” for burial depth exceeding 8’.

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**Aprons (2)**
- Installed on pipe ends, aprons divert water in and away from culvert openings.
- Match to pipe diameter.

**Split Coupler(s)**
- Couplers join two lengths of pipe.
- Match to pipe diameter.

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**Excavation**
- Excavate trench width according to chart.

**Bedding**
- Crushed stone preferred
- Sand, gravel, or gravel/sand mix may be used.

**Pipe Diameter**
- 8" (200 mm)
- 10" (250 mm)
- 12" (300 mm)
- 15" (375 mm)
- 18" (450 mm)
- 24" (600 mm)
- 30" (750 mm)
- 42" (1050 mm)
- 48" (1200 mm)
- 60" (1500 mm)

**Trench Width**
- 26" (650 mm)
- 28" (700 mm)
- 30" (750 mm)
- 34" (850 mm)
- 39" (975 mm)
- 47" (1175 mm)
- 56" (1400 mm)
- 63" (1600 mm)
- 72" (1800 mm)
- 80" (2000 mm)
- 96" (2400 mm)

**Pipe Diameter**
- 8" (100 mm)
- 12" (300 mm)
- 42" (1050 mm)
- 48" (1200 mm)
- 60" (1500 mm)

**Min. Bedding**
- 4" (100 mm)
- 6" (150 mm)

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**GOLDFLO® or GOLDLINE® Pipe**
- Estimate length and round up to nearest 20' length.

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**8"-60" GOLDFLO® or GOLDLINE® Pipe**
- Estimate length and round up to nearest 20' length.

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**Aprons (2)**
- Installed on pipe ends, aprons divert water in and away from culvert openings.
- Match to pipe diameter.

**Split Coupler(s)**
- Couplers join two lengths of pipe.
- Match to pipe diameter.
**ACCESSORY INSTALLATION**

*Extend pipe beyond slope on each side of driveway.*

*Fit apron onto pipe. Align tie-downs to fit into valley between corrugations. Tighten bandings in apron for firm connection.*

*Split Coupler*

- Used when joining two lengths of pipe.
- Set two corrugations of each joining pipe into coupler. Wrap coupler around pipe. Secure connection with zip ties through drilled holes in the coupler.
- Refer to Prinsco's Split Coupler Installation Guide for more details.

*Provide additional excavation for aprons.*

**LOADING CAPABILITIES**

Buried corrugated HDPE culverts are rated for H-25/HS-25 loading, provided there is a minimum amount of cover over the pipe and proper soil support around the pipe.

See illustration below for H-25 and HS-25 vehicular loads based on AASHTO vehicle configurations showing the two truck configurations and the associated loading distribution. Heavier axle loads may be possible with special installation practices. For pipe diameters up to 36", a minimum of 12" of cover is recommended if pavement is used and 18" of cover with no pavement over the pipe. Visit www.Prinsco.com for additional information.

*Source: AASHTO Standard Specifications for Highway Bridges*

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**W = Total Weight of Truck and Load**

- **H-25**
  - 10,000 lbs.
  - 8,000 lbs.
  - 6,000 lbs.
  - 4,000 lbs.

- **H-20**
  - 8,000 lbs.
  - 6,000 lbs.
  - 4,000 lbs.

- **H-15**
  - 6,000 lbs.

- **H-10**
  - 4,000 lbs.

- **HS-25**
  - 10,000 lbs.
  - 8,000 lbs.
  - 6,000 lbs.

- **HS-20**
  - 8,000 lbs.
  - 6,000 lbs.

- **HS-15**
  - 6,000 lbs.

- **HS-10**
  - 4,000 lbs.

*Use spacing that produces the maximum stresses.*

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